AMENDMENTS TO THE CLAIMS

1-56. (Cancelled)

57. (Original) A method of forming a magnetic tunnel junction, said method comprising the steps of:

forming a first magnetic layer;

forming a first nonmagnetic layer in contact with said first magnetic layer;

removing a portion of said first nonmagnetic layer to form an opening which exposes a portion of said first magnetic layer; and

forming a tunnel barrier layer within said opening in contact with said first magnetic layer; and

forming a second magnetic layer over said tunnel barrier layer.

58. (Original) The method of claim 57 wherein said first nonmagnetic layer is formed to be thicker than said tunnel barrier layer.

59. (Original) The method of claim 58 wherein one of said first and second magnetic layers is a free layer.

60. (Original) The method of claim 59 wherein the other of said first and second magnetic layers is a pinned layer.

61. (Original) The method of claim 60 wherein said tunnel barrier layer is formed to have a smaller surface area than said free layer.

62. (Original) The method of claim 57 wherein said first nonmagnetic layer comprises aluminum oxide.

63. (Original) The method of claim 57 wherein said tunnel barrier layer comprises aluminum oxide.

64. (Original) The method of claim 58 wherein said first nonmagnetic layer is formed to have a thickness in a range of about 20 Angstroms to about 300 Angstroms.

65. (Original) The method of claim 64 wherein said tunnel barrier layer is formed to have a thickness in a range of about 5 Angstroms to about 20 Angstroms.

66. (Original) The method of claim 60 wherein edges of said free layer are formed over at least said first nonmagnetic layer.

67. (Original) The method of claim 60 wherein said tunnel barrier layer is formed to have a smaller surface area than said free layer.

68. (Original) The method of claim 60 wherein said tunnel barrier layer is centered with respect to said free layer.

69. (Original) The method of claim 60 wherein said tunnel barrier layer is positioned off-center with respect to said free layer.

70. (Original) The method of claim 60 wherein said tunnel barrier layer is formed to have a different shape than said free layer.

71. (Original) The method of claim 60 wherein said tunnel barrier layer and said free layer are formed to have substantially the same shape.

72. (Original) The method of claim 60 further wherein said tunnel barrier layer is formed to extend outside of said opening.

73. (Original) A method of forming a magnetic random access memory element, said method comprising:

forming a substrate;

forming at least one first conductive line;

forming at least one first ferromagnetic layer in electrical communication with said at least one first conductive line;

forming at least one first nonmagnetic layer over said at least one first ferromagnetic layer;

forming at least one opening in said at least one first nonmagnetic layer;

forming a tunnel barrier layer within said opening;

forming at least one second ferromagnetic layer over said tunnel barrier layer; and

forming at least one second conductive line in electrical communication with said at least one second ferromagnetic layer.

74. (Original) The method of claim 73 where one of said at least one first and said at least one second ferromagnetic layers is a free ferromagnetic layer.

75. (Original) The method of claim 74 wherein the other of said at least one first and said at least one second ferromagnetic layers is a pinned ferromagnetic layer.

76. (Original) The method of claim 73 wherein said at least one first nonmagnetic layer is thicker than said tunnel barrier layer.

77. (Original) The method of claim 75 wherein and said tunnel barrier layer is formed to have a smaller surface area than said free ferromagnetic layer.

78. (Original) The method of claim 73 wherein said at least one first nonmagnetic layer comprises aluminum oxide.

79. (Original) The method of claim 73 wherein said tunnel barrier layer comprises aluminum oxide.

80-91. (Cancelled)

92. (Original) A method of forming a magnetic tunnel junction, said method comprising the steps of:

forming a pinning structure comprising a pinned layer;

forming a first nonmagnetic layer in contact with said pinning structure;

removing a portion of said first nonmagnetic layer to form an opening which exposes a portion of said pinning structure; and

forming a tunnel barrier layer within said opening in contact with said pinning structure; and

forming a sensing structure comprising a free layer over said tunnel barrier layer.

93. (Original) The method of claim 92 wherein said pinning structure is formed to be thicker than said tunnel barrier layer.

94. (Original) The method of claim 92 wherein said step of forming said pinning structure further comprises forming a seed layer.

95. (Original) The method of claim 94 wherein said seed layer comprises nickel-iron.

96. (Original) The method of claim 92 wherein said step of forming said pinning structure further comprises forming an anti-ferromagnetic layer.

97. (Original) The method of claim 96 wherein said antiferromagnetic layer comprises manganese-iron.

98. (Original) The method of claim 92 wherein said tunnel barrier layer is formed to have a smaller surface area than said sensing structure.

99. (Original) The method of claim 92 wherein said pinned ferromagnetic layer comprises nickel-iron.

100. (Original) The method of claim 92 wherein said step of forming said sensing structure further comprises forming a cap layer.

101. (Original) The method of claim 100 wherein said cap layer comprises tantalum.

102. (Original) The method of claim 92 wherein said free ferromagnetic layer comprises nickel-iron.